

WHAT IS CLAIMED IS:

1. A data processing apparatus for decoding and reproducing object data separated from a coded bit stream including at least object data of moving image and audio, based on first time information for synchronization management of the moving image and audio included in the object data, said data processing apparatus comprising:

a) time information acquiring means for acquiring second time information for synchronization management of the moving image and audio, based on a speed conversion request from the outside;

b) setting means for setting the second time information acquired by the time information acquiring means, as the first time information; and

c) decoding means for decoding the object data, using said second time information.

2. An apparatus according to Claim 1, wherein the coded bit stream includes a bit stream based on MPEG-4.

3. An apparatus according to Claim 1, wherein the object data of audio includes data coded by high-efficiency compression coding according to a coding method having a reproduction speed conversion function.

4. An apparatus according to Claim 1, further

comprising extracting means for extracting the first time information from an access unit of the object data fed into a buffer for decoding target data.

5 5. An apparatus according to Claim 1, wherein the decoding means of the object data of audio has a reproduction speed conversion function.

10 6. An apparatus according to Claim 1, wherein the time information includes a DTS (Decoding Time Stamp) and a CTS (Composition Time Stamp).

15 7. An apparatus according to Claim 1, further comprising notifying means for notifying the decoding means for the object data of audio, of a reproduction speed magnification factor indicated by said speed conversion request.

20 8. A data processing method for separating and decoding a bit stream including object data of one or plural coded moving image and audio, in units of the object data, compositing the one or plural object data thus decoded, and outputting the result of composition, said data processing method comprising:

25 a) an extraction step of specifying and extracting an area of first time information for synchronization management of the moving image and audio from the

object data;

b) a setting step of calculating second time information for synchronization management of the moving image and audio, based on a speed conversion request from the outside, and setting the second time information as the first time information; and

c) a decoding step of decoding the object data, based on the second time information.

10 9. A method according to Claim 8, wherein the bit stream includes a bit stream of MPEG-4.

15 10. A method according to Claim 8, wherein the object data of audio includes data coded by high-efficiency compression coding according to a coding method having a reproduction speed conversion function.

20 11. A method according to Claim 8, wherein said extraction step includes a step of extracting said first time information from an access unit fed into a decoding buffer for the object data.

25 12. A method according to Claim 8, wherein said decoding step includes a reproduction speed conversion function.

13. A method according to Claim 8, wherein the

time information includes a DTS (Decoding Time Stamp) and a CTS (Composition Time Stamp).

14. A method according to Claim 8, further
5 comprising a notification step of notifying an audio decoder for decoding the object data of audio, of a reproduction speed magnification factor according to the speed conversion request.

10 15. A data processing program, which can be executed by a computer, for separating and decoding a bit stream including object data of one or plural coded moving image and audio, in units of the object data, compositing the one or plural object data thus decoded,
15 and outputting the result of composition, said data processing program comprising:

a) a code of an extraction step of specifying and extracting an area of first time information for synchronization management of the moving image and
20 audio from the object data;

b) a code of a setting step of calculating second time information for synchronization management of the moving image and audio, based on a speed conversion request from the outside, and setting the second time
25 information as the first time information; and

c) a code of a decoding step of decoding the object data, based on the second time information.

16. A computer-readable memory storing a data processing program for separating and decoding a bit stream including object data of one or plural coded moving image and audio, in units of the object data, 5 compositing the one or plural object data thus decoded, and outputting the result of composition, said data processing program comprising:

10 a) a code of an extraction step of specifying and extracting an area of first time information for synchronization management of the moving image and audio from the object data;

15 b) a code of a setting step of calculating second time information for synchronization management of the moving image and audio, based on a speed conversion request from the outside, and setting the second time information as the first time information; and

c) a code of a decoding step of decoding the object data, based on the second time information.

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